

Australian/New Zealand Standard™

**Approval and test specification—
Electrical portable outlet devices**



AS/NZS 3105:2014

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-004, Electrical Accessories. It was approved on behalf of the Council of Standards Australia on 28 March 2014 and on behalf of the Council of Standards New Zealand on 21 March 2014.
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The following are represented on Committee EL-004:

Australian Industry Group
Australian Chamber of Commerce and Industry
Consumer Electronics Suppliers Association
Consumers Federation of Australia
Electrical Compliance Testing Association
Electrical Regulatory Authorities Council
Engineers Australia
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Approval and test specification— Electrical portable outlet devices

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-004, Electrical Accessories, to supersede AS/NZS 3105:2012 *Approval and test specification—Electrical portable outlet devices*, and AS/NZS 3197:2005, *Approval and test specification—Portable electrical control or conditioning devices*, 2 years from the date of publication. During this period, AS/NZS 3105:2012, AS/NZS 3197:2005 and this Standard will run in parallel.

This Standard incorporates Amendment No. 1 (June 2017). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.

The objective of this Standard is to provide Australian and New Zealand electrical industries with requirements and test methods for electrical portable outlet devices.

This Standard is one of a series of approval and test specifications to be read in conjunction with AS/NZS 3100, *Approval and test specification—General requirements for electrical equipment*. The purpose of this series is to outline the conditions that must be met to secure approval for the sale and use of electrical accessories in Australia and New Zealand. Only safety matters and related conditions are covered.

The essential safety requirements in AS/NZS 3820, *Essential safety requirements for electrical equipment* that could be applicable to electrical portable outlet devices are covered by this Standard.

This Standard was revised to include requirements for control and conditioning devices previously within the scope of AS/NZS 3197:2005.

This Standard does not include all the necessary provisions of a contract.

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STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Australian/New Zealand Standard**Approval and test specification—Electrical portable outlet devices****1 SCOPE**

This Standard specifies essential safety requirements for electrical portable outlet devices (EPODs) primarily intended for household and similar use at low voltage and having an outlet facility or facilities in the form of socket outlets or cord extension sockets or connectors. EPODs may include control and conditioning functions as defined in Clause 4.1.

They are intended for use in readily accessible locations and not for permanent installation.

Cord extension sets which incorporate an integral reeling or coiling device are within the scope of this standard.

Plugs within the scope of AS/NZS 3112, cord extension sockets within the scope of AS/NZS 3120, socket-outlet adaptors within the scope of AS/NZS 3122 that incorporate control or conditioning functions and cord extension sets within the scope of AS/NZS 3199 that incorporate control or conditioning functions, are within the scope of this Standard. In these cases, the term ‘EPOD’ in this Standard is to be taken to mean the ‘plug’ or ‘cord extension socket’, ‘socket-outlet adaptor’ or ‘cord extension set’ respectively.

This Standard does not apply to the following:

- (a) Cord extension sets, within the scope of AS/NZS 3199.
- (b) Portable residual current devices, within the scope of AS/NZS 3190.
- (c) Socket-outlet adaptors, within the scope of AS/NZS 3122.
- (d) Electric inspection handlamps, within the scope of AS/NZS 60598.2.8.
- (e) Portable devices incorporating voltage transformation within the scope of AS/NZS 61558 (series).
- (f) Appliance connectors incorporating control facilities within the scope of AS/NZS 60320.1.

NOTE: Thermostats and energy regulators of the self-contained type that are intended for independent mounting are within the scope of AS/NZS 3161.

2 APPLICATION**2.1 General requirements of AS/NZS 3100**

This Standard shall be read in conjunction with AS/NZS 3100, and the appropriate provisions of AS/NZS 3100 shall apply to the construction of the EPOD and its insulation and the safeguarding of parts that normally carry current.

2.2 Specific requirements of this Standard

An EPOD shall be deemed to comply with this Standard only if it complies with all the relevant requirements of this Standard and passes the tests specified herein.

2.3 Requirements of other Standards

Components incorporated in an EPOD, which are depended upon for safety, shall comply with the appropriate requirements of the relevant Australian Standard, Joint Australian/New Zealand Standard or, if no Australian or Australian/New Zealand Standard exists, IEC Standard.

3 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS/NZS

3100	Approval and test specification—General requirements for electrical equipment
3111	Approval and test specification—Miniature overcurrent circuit-breakers
3112	Approval and test specification—Plugs and socket-outlets
3117	Approval and test specification—Bayonet lampholders
3120	Approval and test specification—Cord extension sockets
3121	Approval and test specification—Insulating mouldings
3122	Approval and test specification—Socket-outlet adaptors
3127	Approval and test specification—Cord-line switches
3133	Approval and test specification—Air-break switches
3140	Approval and test specification—Edison-type screw lampholders
3161	Approval and test specification—Thermostats and energy regulators
3190	Approval and test specification—Residual current devices (current-operated earth-leakage devices)
3191	Electric flexible cords
3199	Approval and test specification—Cord extension sets
60227	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V
60227.5	Part 5: Flexible cables (cords)
60238	Edison screw lampholders (IEC 60238, Ed.8.0 (2004) MOD)
60245	Rubber insulated cables—Rated voltages up to and including 450/750 V
60245.4	Part 4: Cords and flexible cables
60320	Appliance couplers for household and similar general purposes
60320.1	Part 1: General requirements (IEC 60320-1, Ed. 2.1 (2007) MOD)
60320.2.2	Part 2.2: Interconnection couplers for household and similar equipment (IEC 60320-2-2, Ed. 2.0 (1998) MOD)
60335	Household and similar electrical appliances—Safety
60335.1	Part 1: General requirements (IEC 60335-1, Ed 5, MOD)
60598	Luminaires
60598.2.8	Part 2.8: Particular requirements—Handlamps
60898	Electrical accessories—Circuit-breakers for overcurrent protection for household and similar installations
60898.1	Part 1: Circuit-breakers for a.c. operation (IEC 60898-1, Ed. 1.2 (2003) MOD)
61184	Bayonet lampholders (IEC 61184, Ed. 2.0 (1997) MOD)

AS/NZS

61347 Lamp controlgear

61347.2.8 Part 2.8: Particular requirements for ballasts for fluorescent lamps
(IEC 61347-2-8:2000, MOD)

61558 Safety of power transformers, power supply units and similar (series)

IEC

60730 Automatic electrical controls for household and similar use (series)

4 DEFINITIONS

For the purpose of this Standard the following definitions apply.

4.1 Control or conditioning function

A function which enables, disables or alters the electrical output of a device, other than by means of a simple, manually-operated switch.

Typical examples of devices having a control or conditioning function are those which incorporate energy regulators, speed controllers, timing devices, photoelectric devices, devices actuated by sound or radiofrequency, devices actuated by signals or impulses generated remotely by manual or automatic means, movement detectors, lighting dimmers, temperature-sensitive devices, voltage/frequency conditioning devices and filtering devices.

Fuses, radio interference suppression devices and indicating devices, e.g. neons and light-emitting diodes, are not considered to provide a control or conditioning function.

4.2 Cycling trip-free overcurrent device

An overcurrent device, the moving contacts of which return to the open position when the automatic opening operation is initiated after the initiation of the closing operation, and which will then reclose repeatedly and momentarily, if the closing command is maintained.

4.3 Detachable reeling or coiling arrangement

An arrangement, which may be in the form of a frame or reel, intended for the storage of the whole or part of a power supply cord, and which is detachable from the cord or EPOD without the use of a tool.

4.4 Electrical portable outlet device (EPOD)

A device, other than a cord extension set or a socket-outlet adaptor without any control or conditioning functions, having a single means of connection to a low voltage supply, and one or more outlet facilities. It may incorporate a reeling or coiling arrangement and/or a control or conditioning function.

4.5 Integrally moulded electrical portable outlet device

A device constructed so that its power supply cord is moulded to the device to form an integral unit; it being impossible to detach the power supply cord without breaking or destroying the device.

4.6 Junction

A construction which is enclosed and incorporates integral means for the attachment of sheathing, insulation, conductors and terminations of two flexible cords together with a power supply cord. It is moulded to form an integral unit; it being impossible to gain access to the terminations without destroying the junction.